



Learning to Fly with Raven's Eye

A practical manual.

Published by Raven's Eye.

Learning to Fly, with Raven's Eye:

A practical manual.

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Welcome to Raven's Eye.

Raven's Eye is proud to welcome you to a new age in automated natural language analysis. We are excited about the future, and happy that you've chosen to fly with us beyond today's horizons.

This practical manual.

In order to get you soaring without delay, this manual focuses on the practical aspects of uploading and analyzing your data with our revolutionary software. It is, therefore concerned with the processes and practicalities of interacting with our online software. The first nine chapters in this manual are ordered according to the steps taken when conducting analyses with Raven's Eye. The remaining chapters present practical information that may be of use to you as you work with our software. Should you misplace this manual, it is freely available at: <http://ravens-eye.net/support/index.html>

In *Preparing your data*, we provide an overview of the things you need to do, in order to prepare your data for analysis by Raven's Eye. *Logging in* discusses the brief process of logging in to our online software, while also describing the Raven's Eye menu bar and main window. Once you have logged in to Raven's Eye, *Uploading your data* explains how to save your data as projects for analysis. *Classifying your columns* briefly details how to tell Raven's Eye what types of data are in each column of your project. Once you have classified your columns, you are taken to your results, which are discussed in the appropriately entitled *Understanding your results* chapter of this manual. This chapter describes the new additions to the menu bar that appear on the results page, and explains the way in which results are calculated and presented in the main table. The next chapter, *Comparing your variables*, discusses how to compare the results of different states or classes of variables while providing detailed explanation of the subsample comparisons table generated when doing so. *Working with previously uploaded data* describes how to access previously uploaded projects for the purposes of continuing an interrupted analysis, or to reclassify their associated data. *Exporting data* illustrates the step taken to download your results to your computer or device for local analysis and presentation. Finally, *Signing out* provides description of the few steps involved in signing out of Raven's Eye.

Following these chapters is *Recovering lost and forgotten usernames or passwords*, which provides information about the procedures to take if you cannot remember your username or password. *Licensing Raven's Eye* provides information and links about purchasing and renewing licenses, while *Rewarding humanitarian research* describes our Humanitarian Awards. In case you cannot find it elsewhere, in *Contact us* we detail how to best be in touch with us. Finally, at the end of this manual, *Appendix A* reproduces the *Terms and Conditions of Use and Purchase* that you consented to when purchasing our software. Our *Privacy Policy* and *Software User Agreement* are included under these terms of use.

Other resources.

With your Raven's Eye membership, you have several types of resources available to you. Our free online video tutorials are designed to complement this manual, and therefore follow its content in stepwise fashion. They are available at: <http://ravens-eye.net/support/tutorials/index.html> *Under the feathers: a technical manual on the science and technology of Raven's Eye* provides detailed information about how to integrate themes and interpret your results in the context of common scientific standards. If you are looking for scientific or technical information, you will likely find it in that manual. Additionally, answers to frequently asked questions can be found on the Raven's Eye FAQs page, at: <http://ravens-eye.net/support/FAQs/index.html>

Preparing your data.

To prepare your data, you will need to organize it in a spreadsheet program. Raven's Eye works on any spreadsheet saved in .xls, .xlsx, or .csv formats. Other than saving the file in one of these formats, there are only a few things that should be done when preparing your data:

- First, you will need to arrange your data so that your variables and responses are ordered by column, and your cases are ordered by rows.

The top screenshot shows a spreadsheet with columns labeled 'Variables' (A, B, C) and 'Responses' (D, E, F, G). The data is as follows:

	A	B	C	D	E	F	G
1	Number	Bio Sex	Age	Primary ethnic	Response 1	Response 2	Response 3
2	84	Male.	29	White.	In this picture,	In this picture,	This woma
3	86	Female.	30	White.	Victor, the litt	Clara, the girl	This young
4	87	Female.	20	White.	Prior to this sc	The young wo	The woma
5	92	Female	28	No response	What happene	This girl was r	This woma

The bottom screenshot shows a bracketed group of columns labeled 'Cases' (A, B, C). The data is as follows:

	A	B	C	D	E	F	G
1	Number	Bio Sex	Age	Primary ethnic	Response 1	Response 2	Response 3
2	84	Male.	29	White.	In this picture,	In this picture,	This woma
3	86	Female.	30	White.	Victor, the litt	Clara, the girl	This young
4	87	Female.	20	White.	Prior to this sc	The young wo	The woma
5	92	Female	28	No response	What happene	This girl was r	This woma

- Next, you will want to make sure that your column labels are accurate, and are free from punctuation. Ensure that you have labeled all columns, and that there are no periods, quotation marks, parentheses, or other punctuation.

The screenshot shows the same spreadsheet as above, but with the column label 'Age' in cell C1 circled in red with a diagonal slash, indicating it is incorrect due to punctuation.

- Thirdly, you will want to eliminate any empty columns. To do so, click on the empty column, and then select delete in your spreadsheet program's dropdown menu bar.

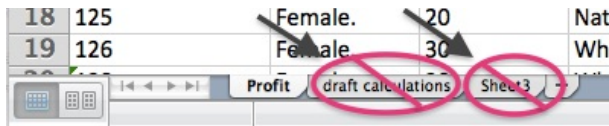
The screenshot shows the same spreadsheet as above, but with column D circled in red with a diagonal slash, indicating it is an empty column to be deleted.

- Next, you will need to eliminate all formulas and formats from all cells. You can do so by either individually editing each column, row, or cell containing formulas or formats, or you can eliminate them all at once by selecting the

sheet, copying it, and then use the past special function to paste only the values in a new sheet, workbook, or file.

	A	B	C
1	Number	Bio Sex	Age
2	84	Male.	29
3	=SUM(A5,A13,A16)	Female.	30
4	87	Female.	20
5	92	Female.	28

- Finally, you will need to ensure that there is only one sheet per workbook or file. If your workbook or spreadsheet file contains more than one sheet, you will need to delete all sheets but the one that contains the data that you would like to analyze. If these sheets contain information that you would like to retain, you should save the single-sheet workbook or file under a new name.

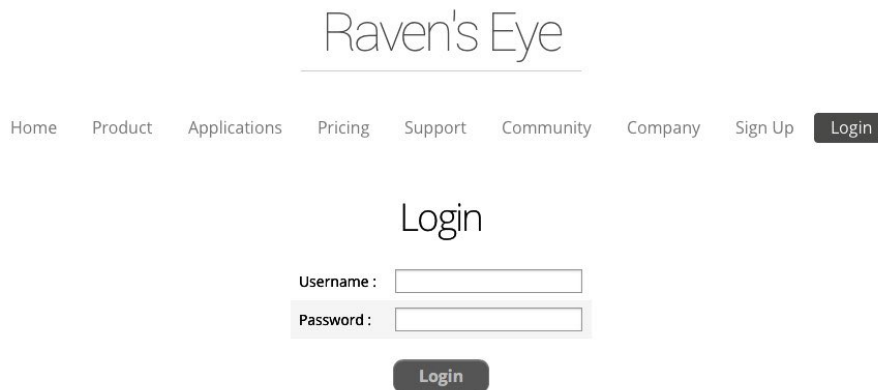


Once you have completed these steps, you are ready to log in and upload your data for analysis.

If your spreadsheet program does not normally save or export to .xls, .xlsx, or .csv file formats, check its user manual for directions on saving or exporting to these file formats prior to uploading data. Nearly all spreadsheet programs will export or save files to one or both of these file formats, though you may need to utilize a specific *Export*, *Save As*, or *Share* menu in your spreadsheet program to do so.

Logging in.

To log in to Raven's Eye, go to the homepage for the Raven's Eye website (<http://ravens-eye.net>) and then navigate to the *Login* page by selecting it from the menu at the top of the homepage. Based on whether or not your computer is accessible to others, you may want to add the *Login* page to your browser's bookmarks or favorites, so that you can go directly to it in the future.



Raven's Eye

Home Product Applications Pricing Support Community Company Sign Up Login

Login

Username :

Password :

Login

Once you have arrived at the *Login* page, enter into the appropriately labeled boxes the username and password that you created when you registered your account. After doing this, click on the *Login* button.

You have now logged in to Raven's Eye. If this is your first time logging in, or if you otherwise have no projects uploaded to Raven's Eye, you will be taken to the *Select a project to upload* page. If you have previously uploaded one or more projects to Raven's Eye, you will be taken to the *Select a project to analyze* page. The specific features presented on the *Select a project to upload* page are described in detail in the *Uploading your data* chapter of this manual, while the specific features of the *Select a project to analyze* page are described in detail in the *Working with previously uploaded projects* chapter of this manual. No matter which page you are directed to upon logging in, you are introduced to two general aspects of the Raven's Eye software program: the menu bar and the main window.

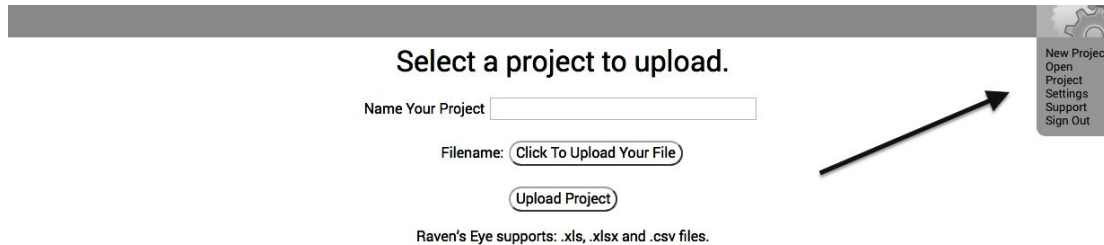
Menu bar.

After logging in, a gray bar will appear at the top of your browser. This is the menu bar. We keep it straightforward and gray to facilitate direct access to your data, and to reduce inadvertent interpretive influence, respectively.



As long as you are logged in to Raven's Eye, the menu bar will remain at the top of your browser window, though it adapts based on your current activity.

On the right-hand side of the menu bar are some moving cogs. Clicking on them reveals a dropdown menu.



In this menu are the following options:

New Project. By clicking on the *New Project* link, you will be taken to the *Select a project to upload* page, on which you'll be allowed to upload a new project for analysis. Clicking this link closes your current analysis, and saves it as-is. The *Select a project to upload* page is further explained in the *Uploading your data* chapter of this manual.

Open Project. By clicking on the *Open Project* link, you will be taken to the *Select a project to analyze* page, on which you'll be allowed to select to open one of your currently uploaded projects. Clicking this link closes your current analysis, and saves it as-is.

Settings. This page will be utilized in subsequent versions of Raven's Eye (we're always planning for the future).

Support. By clicking on the *Support* link, you will be taken to our main support page, which contains a downloadable PDF copy of this manual, plus links to our *FAQs*, our *Tutorials*. Clicking the *Support* link closes your current analysis, and saves it as-is. If you are analyzing a project and want to keep your analysis open while accessing support, right-click (or command-click) this link to open it in a new and separate browser tab.

Sign Out. Click on the *Sign Out* link to log out of Raven's Eye (you will be taken to our login page). If you are using a computer that someone else can access, we recommend that you treat your account as you would your bank account, and quit or completely close out your browser after logging out (we'd also recommend clearing your browser's history, but that's just us being us).

Additional options (and their corresponding dropdown menus) appear on the menu bar as you progress through successive levels of analysis. These are described as they arise in subsequent chapters of this manual.

Main window.

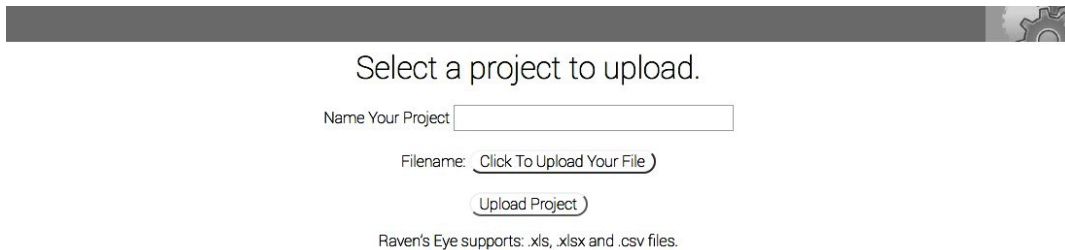
Our main window keeps things efficient, non-biasing, and user-friendly, so that your focus remains on what's important to you: your results, instantaneously. Because of this, and like our menu bar, our main window is adaptive, and presents information on an as-needed basis as you progress through successive levels of analysis.

On pages concerned with uploading, accessing, classifying, or reclassifying your data, the main window focuses on the task at hand, and presents information in readily understandable formats. The content, choices, and options presented on these pages are described in the *Uploading your data*, *Classifying your columns*, *Working with previously uploaded projects*, and *Exporting your results* chapters of this manual.

In the few seconds it takes to arrive at your results, your main window will display them in the form of interactive tables. These tables are easily downloadable for rapid conversion into spreadsheet generated charts and graphs. Like our menu bar and main window, the table is adaptive, and presents information based on the particular variables and responses that you've selected for analysis. The content and options presented on these tables, as well as the formulas underlying them, are described in the *Understanding your results*, and *Comparing your variables* chapters of this manual.

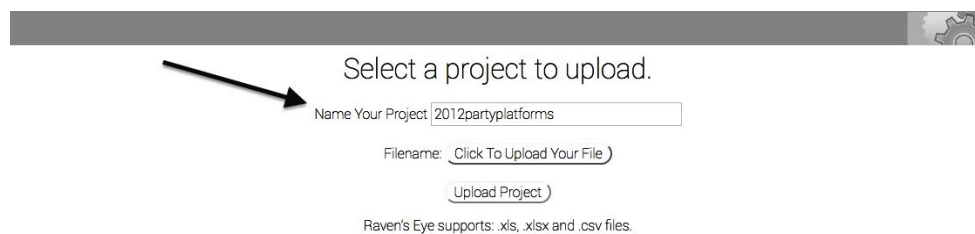
Uploading your data.

Uploading your data is relatively easy, and only takes a few steps. If it is your first time logging in to Raven's Eye, or if you otherwise have no projects uploaded, you will be taken to the *Select a project to upload* page. This is the page on which you can upload data for analysis by Raven's Eye.

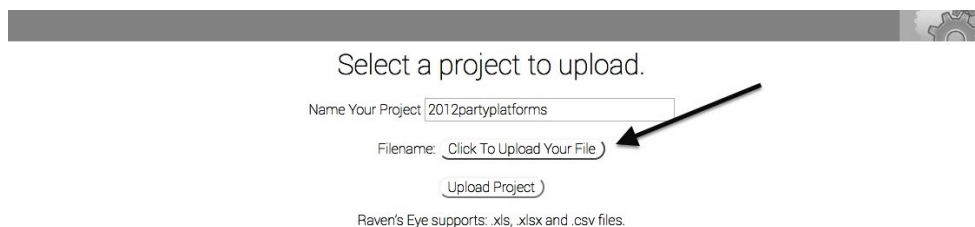


To upload a project:

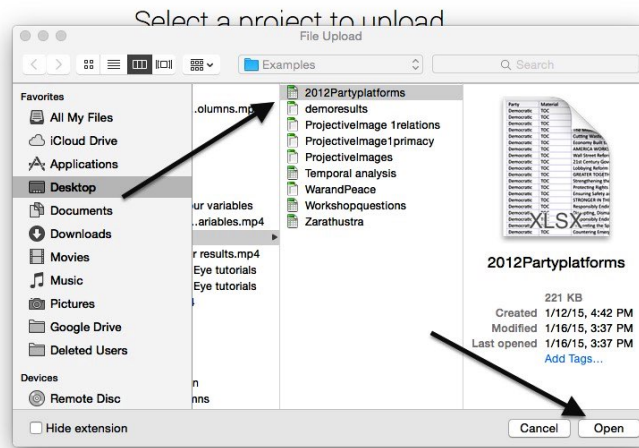
- First, name the project. Place your cursor in *Name Your Project* text box and type a project name that will assist you in keeping track of your projects.



- Second, select the *Click To Upload Your File* button by clicking on it.



- Third, in the *File Upload* box that appears, navigate to the folder on your computer containing the file that you would like to upload. Select it by clicking on it, and then click the *Open* button in the bottom right-hand corner of the box. Remember, before uploading a file, you will need to prepare its contents and save or export it as one of the following file formats: .xls, .xlsx, or, .csv.



- Once you have selected the file you want to upload, its name and file extension (e.g., .xlsx) will appear in place of the *Click to Upload Your File* button. Now, select the *Upload Project* button to upload it as your project.



Your project is now uploaded to Raven's Eye, and the *Column classification* page will appear in your browser's window. This page is described in the next chapter.

Classifying your columns.

Once your data has been uploaded, you will arrive at the *Column classification* page.

Column Number	Column Name	Classify Column
Column 0 is named	Timestamp	<input checked="" type="radio"/> Variable <input type="radio"/> Response <input type="radio"/> Exclude
Column 1 is named	Are you Male or Female	<input checked="" type="radio"/> Variable <input type="radio"/> Response <input type="radio"/> Exclude
Column 2 is named	Sample Question 2	<input type="radio"/> Variable <input type="radio"/> Response <input checked="" type="radio"/> Exclude
Column 3 is named	What is your age	<input checked="" type="radio"/> Variable <input type="radio"/> Response <input type="radio"/> Exclude
Column 4 is named	What state do you reside in	<input checked="" type="radio"/> Variable <input type="radio"/> Response <input type="radio"/> Exclude
Column 5 is named	What is your marital status	<input checked="" type="radio"/> Variable <input type="radio"/> Response <input type="radio"/> Exclude
Column 6 is named	What is your sexual orientation	<input checked="" type="radio"/> Variable <input type="radio"/> Response <input type="radio"/> Exclude
Column 7 is named	What is your race or ethnicity	<input checked="" type="radio"/> Variable <input type="radio"/> Response <input type="radio"/> Exclude
Column 8 is named	What is your religious spiritual orientation	<input checked="" type="radio"/> Variable <input type="radio"/> Response <input type="radio"/> Exclude
Column 9 is named	Do you love yourself	<input type="radio"/> Variable <input type="radio"/> Response <input checked="" type="radio"/> Exclude
Column 10 is named	What is your definition of Romantic Love	<input type="radio"/> Variable <input checked="" type="radio"/> Response <input type="radio"/> Exclude

In the *Classify Column* area, you are prompted to identify whether each data column in your uploaded project consists of a variable, or a response. You are also able to exclude specific columns of data from your analysis.

Variable. Selecting this option indicates that the data in the column should be considered a variable. If conducting an experiment, these are your independent variables or conditions. If conducting correlational research, these are your predictors. If conducting a survey, then these are your demographics, such as gender, age or political affiliation, or any other characteristic you care to collect.

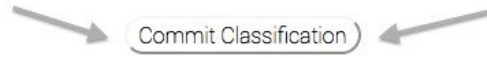
Response. Selecting this option includes all of the data in the column in the pool of natural language to be analyzed. Selecting more than one response is an additive process. This means that selecting more than one will response will combine all of the data in each selected column together into one pool for analysis.

Exclude. Selecting this option excludes all of the data in the column from the analysis. This is useful in projects with multiple responses (such as surveys with multiple questions).

After you have classified your columns, you will want to review the *Column Name* area, and if needed, remove all symbols and punctuation.

Once you have classified your columns and removed symbols and punctuation from the *Column Name* area, you can analyze your data by clicking the *Commit Classification* button, located at the bottom of the page.

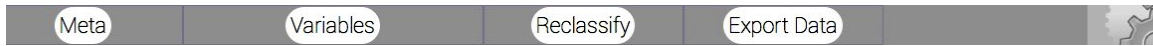
When you click the *Commit Classification* button, you will be immediately taken to the results of your analysis. Please see *Understanding your results* for information on the page that appears.



Understanding your results.

Menu bar additions.

When you receive the results of your analysis, four new buttons appear in your menu bar. These new buttons each correspond to different functional features available in Raven's Eye. They are labeled *Meta*, *Variables*, *Reclassify* and *Export Data*.



We describe each button individually in this section, though several of their functions are also discussed in detail during subsequent chapters of this manual.

Meta. By clicking on the *Meta* button, the following information about your data pool is revealed:

A screenshot of the 'Meta' information panel. It shows a table with five columns: '# Sample', '% Sample', '% Corpus', and 'Overrepresentation'. The first row of data is for 'a', followed by 'and' and 'the'. To the left of the table, there is a 'Selected Meta Information' section with several statistics listed.

	# Sample	% Sample	% Corpus	Overrepresentation
a	1309	6.496	1.056	6.152
and	786	3.901	2.329	1.675
the	778	3.861	1.932	1.998

Selected Meta Information
Reading ease: 58.39
Grade level: 9.86
Sentence count: 1056
Word count: 20151
Average cell word count: 35.665
Syllable count: 30745

Reading ease—this is the *Flesch Reading Ease Score* of your sample, or if selected, your subsample.

Grade level—this is the *Flesch-Kincaid Grade Level* of your sample, or if selected, your subsample.

Sentence count—this is the total sentences in your sample, or if selected, your subsample.

Word count—this is the total word count of your sample, or if selected, your subsample.

Average cell word count—this is the average number of words per cell in your sample, or if selected, your subsample.

Syllable count—this is the total number of syllables in your sample, or if selected, your subsample.

Variables. By clicking on the *Variables* button in the menu bar, you can select particular states or classes of variables to be compared against other states or classes. This is useful for comparing response patterns between experimental conditions or demographic characteristics. The menu that appears when selecting this button is explained in detail in the *Comparing your variables* chapter of this manual.

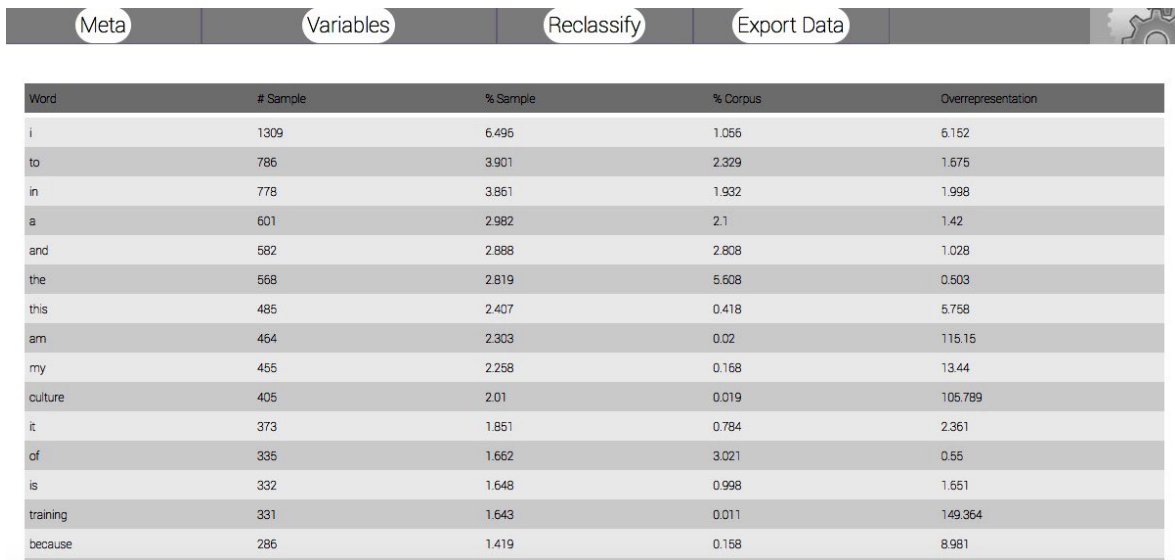
Reclassify. By clicking on the *Reclassify* button, you can alter your previous classification of columns. For example, data that was previously excluded can now be selected and included as a response to be analyzed. The process of reclassifying variables is explained in detail in the *Reclassifying your columns* chapter of this manual.

Export Data. By clicking on the *Export Data* button, the table of results currently loaded on your page is downloaded to your device in .xls format. The process of exporting your results is explained in detail in the *Exporting your results* chapter of this manual.

The menu bar continues to provide links (located under the moving cogs) to create a new project or open an existing project, access settings or support, or to sign out.

Main table.

Your results are initially displayed in a table containing 5 columns. The table will, by default, arrange data according to the proportion of the sample that each word comprises, which is displayed in the third column. Columns can be re-sorted by clicking on the title of a column. The remainder of this section will detail the information presented in each column, as well as that calculations underlying them.



Word	# Sample	% Sample	% Corpus	Overrepresentation
i	1309	6.496	1.056	6.152
to	786	3.901	2.329	1.675
in	778	3.861	1.932	1.998
a	601	2.982	2.1	1.42
and	582	2.888	2.808	1.028
the	568	2.819	5.608	0.503
this	485	2.407	0.418	5.758
am	464	2.303	0.02	115.15
my	455	2.258	0.168	13.44
culture	405	2.01	0.019	105.789
it	373	1.851	0.784	2.361
of	335	1.662	3.021	0.55
is	332	1.648	0.998	1.651
training	331	1.643	0.011	149.354
because	286	1.419	0.158	8.981

The first column is entitled *Word*. This column lists each and every word in your data set.

The second column, *# Sample*, identifies the number of times that each specific word is found in your sample.

The third column, *% Sample*, identifies the proportion of the sample accounted for by each and every word in the sample (converted to percent). By default, this

column orders all of the data presented in the table. It is arranged in descending order.

The fourth column, % Corpus, identifies the proportion of the comparison corpus accounted for by each and every word in the sample (converted to percent).

The fifth column, Overrepresentation, is the quotient of the third column (% Sample) divided by the fourth column (% Corpus), and represents the degree to which each given word is overrepresented in your sample, based on the proportion of that given word in the comparison corpus. For instance, if "1.0" appears in this column, that means the word is used in the sample at the same rate that it is found in the comparison corpus, and is not then particularly associated with your question or stimulus. If, however, "10.3" appears in this column for a given word, that means that the word is found 10.3 times more frequently in the sample than it is found in the comparison corpus, and is highly associated with the question or stimulus at-hand.

As may be apparent, the numbers found in the *Overrepresentation* column also serve as estimations of confidence. For instance, if a word has an *Overrepresentation* of 10.0, then you would need to acquire 9 times your current sample size without the word ever being mentioned once, in order for it to revert to insignificance.

If one form of a frequently used word is overrepresented in your sample, then often times both that word's synonyms, and other forms of the same word (called lemmas), will also be overrepresented. For instance, if the word, "hurry," is both frequent and overrepresented in your sample, then such synonyms as, "rush," and "hustle," are also likely to be overrepresented. Similarly, such word forms as "hurries," "hurried," and "hurrying," are also likely to be overrepresented. These synonyms and lemmas can be joined together to form themes.

interested	123	0.61	0.008	76.25
about	117	0.581	0.23	2.526
take	82	0.407	0.058	7.017
interesting	81	0.402	0.022	18.273
more	81	0.402	0.216	1.861
interest	37	0.184	0.02	9.2
education	39	0.194	0.015	12.933
understand	38	0.189	0.015	12.6
understanding	38	0.189	0.008	23.625
learning	38	0.189	0.005	37.8

If your stimulus or question is specific and you have acquired a sufficiently sized sample, you will often be able to find complete sentences formed by reading downward the overrepresented words in the first column (such a sentence can be seen in the table below, which is based on responses to the question, "Why are you enrolled in this culture training?"). If such sentences are comprised of words from the first 50 or so listed by default in the table, then they represent the main themes in your data, as expressed in the vocabulary of your respondents.

Word	# Sample	% Sample	% Corpus	Overrepresentation
i	1309	6.495	1.055	5.152
to	786	3.901	2.329	1.675
in	778	3.861	1.932	1.998
a	601	2.982	2.1	1.42
and	582	2.888	2.808	1.028
the	568	2.819	5.608	0.503
this	485	2.407	0.418	5.758
am	464	2.303	0.02	115.15
my	455	2.258	0.168	13.44
culture	405	2.01	0.019	105.789
it	373	1.851	0.784	2.361
of	335	1.662	3.021	0.55
is	332	1.648	0.998	1.651
training	331	1.643	0.011	149.354
because	286	1.419	0.158	8.981

If the question or stimulus evoking the response is broad, as in, "Tell me about your life," or, if you are analyzing a very large written work in its entirety (such as novel), your responses will be comparatively broad. In these instances, it will be more difficult to quickly identify a well-constructed sentence in the first column, but the main word-based themes will still be apparent. In any case, conducting what is known as the Key-Word-In-Context, or KWIC method, will efficiently and quantitatively reveal the way in which these themes are related in the minds of your participants. If you require even more specificity, you can either subdivide your responses into subsections (such as sentences, paragraphs, or sections), or filter your cases by particular keywords and reanalyze your data, or ask a more specific question.

More information about understanding and interpreting the results presented in the main table, a summary of the KWIC method, and details about ways to subdivide data are all discussed in *Under the feathers: a technical manual on the science and technology of Raven's Eye*.

Comparing your variables.

Raven's Eye easily and efficiently lets you make comparisons between patterns in your data. One way of doing this is by selecting the *Variables* button in the menu bar.

When you click on the *Variables* button to select it, a dropdown box appears. In this box are folder icons representing each column that you previously classified as a variable. Clicking on the + icon next to the folder will reveal the differing states or classes of variables that were present in the data comprising that column. Clicking on the - icon next to the folder will collapse the folder.

Word	% Sample	% Corpus	Overrepresentation
i	6.496	1.056	6.152
to	3.931	2.329	1.675
in	3.861	1.932	1.998
a	2.982	2.1	1.42
and	2.888	2.808	1.028
the	2.819	5.608	0.503
this	2.437	0.418	5.758
am	2.303	0.02	115.15
my	2.258	0.168	13.44
culture	2.01	0.019	105.789
it	1.857	0.784	2.361
of	1.662	3.021	0.55

To compare the change in response patterns associated with these differing states or classes of variables, select one or more or more of them by clicking in the adjacent box (a checkmark will appear in the box). Then, click the *Update* button, located at the bottom of the *Variables* dropdown box. In a matter of seconds, a new table of results will replace the main table. This table is described in the following section of this manual.

Word	# Subsample	% Subsample	% Sample	% Corpus	Variable Overrepresentation	Overrepresentation
i	984	8.694	5.949	1.056	1.125	6.339
in	579	3.939	3.654	1.932	1.078	2.039
to	576	3.819	3.819	2.329	1.026	1.683
a	436	3.03	3.03	2.1	0.979	1.412
and	420	2.956	2.956	2.808	0.967	1.017
the	405	2.993	2.993	5.608	0.923	0.493
am	370	1.744	1.744	0.02	1.443	125.85
this	368	2.148	2.148	0.418	1.166	5.99
my	314	2.571	2.571	0.168	0.831	12.714
culture	303	1.855	1.855	0.019	1.111	108.474
it	280	1.708	1.708	0.784	1.115	2.43
of	251	1.542	1.542	3.021	1.108	0.555
is	245	1.616	1.616	0.998	1.032	1.67
training	241	1.653	1.653	0.011	0.992	149.091
because	216	1.459	1.304	0.158	1.127	9.297

Every time you select a state or class of a particular variable, that state or class is treated as a subsample of your larger sample. All of the responses associated with this state or class are pooled together and compared to the pooled responses associated with every other non-selected state or class of the particular variable. If you select more than one state or class of a variable, the selected states and classes will be pooled together to form your subsample, while the remaining non-selected states or classes will be pooled together to form the comparison pool.

If you select specific states or classes in more than one variable, then the responses from those cases that match the state or class of each and every selected variable independently will be pooled together as your subsample. This is helpful for distinguishing patterns associated with the presence of multiple variables, such as response patterns associated with multiple experimental conditions, or those who meet multiple demographic characteristics.

You can remove your selections at any time by clicking each checkmarked box again (the checkmark will disappear when you do so), and then clicking the *Update* button, located at the bottom of the *Variables* dropdown box.

If you leave your project or sign out of Raven's Eye with variables selected, their selection will be retained in your project the next time you access it. If you would like to restart your analyses anew, please remember to either remove your selections before leaving your project, remove them after reopening your project, or upload your data anew.

Subsample comparisons table.

If you have selected a specific variable value to compare to another (such as men compared to women, or one participant compared to the rest), your results are displayed in a table containing 8 columns. This new table is comprised of all five columns from the main table, plus three additional columns. The three new columns appear interspersed between the five previously described columns of the main table.

Word	# Subsample	# Sample	% Subsample	% Sample	% Corpus	Variable Overrepresentation	Overrepresentation
i	984	324	6.694	5.949	1.056	1.125	6.339
in	579	199	3.939	3.664	1.932	1.078	2.039
to	576	208	3.919	3.819	2.329	1.026	1.683
a	436	165	2.956	3.03	2.1	0.979	1.412
and	420	161	2.857	2.956	2.808	0.967	1.017
the	406	163	2.762	2.993	5.608	0.923	0.493
am	370	95	2.517	1.744	0.02	1.443	125.85
this	368	117	2.504	2.148	0.418	1.166	5.99
my	314	140	2.136	2.571	0.168	0.831	12.714
culture	303	101	2.061	1.855	0.019	1.111	108.474
it	280	93	1.905	1.708	0.784	1.115	2.43
of	251	84	1.708	1.542	3.021	1.108	0.555
is	245	88	1.667	1.616	0.998	1.032	1.67
training	241	90	1.64	1.563	0.011	0.992	149.091

The subsample comparisons table will, by default, arrange data according to the proportion of the subsample that each word comprises. Columns can be re-sorted by clicking on the title of the column.

The first column is entitled *Word*. This column lists each and every word in your data set. It is the same as the first column in the main table, though it now prioritizes by each word's proportion in the subsample (the fourth column).

The second column, *# Subsample*, identifies the number of times that each specific word is found in your subsample.

The third column, *# Sample*, identifies the number of times that each specific word is found in the remainder of the sample not included in your subsample. It is calculated the same way as the second column in the main table.

The fourth column, *% Subsample*, identifies the proportion of the subsample accounted for by each and every word in the subsample (converted to percent). By default, this column orders all of the data presented in the table. It is arranged in descending order.

The fifth column, *% Sample*, identifies the proportion of the non-selected portion of your sample accounted for by each and every word used in it (converted to percent). It is calculated same as the third column in the main table.

The sixth column, *% Corpus*, identifies the proportion of the comparison corpus accounted for by each and every word in the subsample (converted to percent). It is calculated the same way as the fourth column in the main table.

The seventh column, *Variable Overrepresentation*, is the quotient of the fourth column (*% Subsample*) divided by the fifth column (*% Sample*), and represents the degree to which each given word is overrepresented in your subsample, based on the proportion of that given word in the remainder of your sample. As the value in this column approaches "1.0," the more the word is used in the subsample at the same rate that it is found in the remainder of the sample, and is not then particularly associated with this state or class of your variable. The more the value exceeds "1.0," in this column, the more relatively overrepresented the word is in your subsample. Given adequate sample size and representativeness, high degrees of overrepresentation indicate that a word is highly associated with some aspect of the state or class of the variable you have selected to define your subsample, as compared to the rest of your sample.

The eighth column, *Overrepresentation*, is the quotient of the fourth column (*% Subsample*) divided by the fourth column (*% Corpus*), and represents the degree

to which each given word is overrepresented in your subsample, based on the proportion of that given word in the comparison corpus. As the value in this column approaches "1.0," the more the word is used in the subsample at the same rate that it is found in the corpus, and is not then particularly associated with this state or class of your variable. The more the value exceeds "1.0," in this column, the more relatively overrepresented the word is in your subsample. Given adequate sample size and representativeness, high degrees of overrepresentation indicate that a word is highly associated with some aspect of the state or class of the variable you have selected to define your subsample, as compared to the background corpus.

As discussed in the section on the main table, the numbers found in the *Variable Overrepresentation*, and *Overrepresentation* columns also serve as estimations of confidence. This time, however, the estimation is based on your subsample, rather than your sample. For instance, if a word has an *Overrepresentation* of 10.0, then you would need to acquire 9 times your current subsample size without the word ever being mentioned once, in order for it to revert to insignificance.

Since the same algorithms are used to calculate the subsample comparisons table as are used to calculate the main table, you will find that the same patterns emerge. For instance, if one form of a frequently used word is overrepresented in your subsample, then often times both that word's synonyms, and other forms of the same word (called lemmas), will also be overrepresented.

Like the main table, if your stimulus or question is specific and you have acquired a sufficiently sized and representative subsample, you will often be able to find complete sentences formed by reading downward the overrepresented words in the first column. On the other hand, if the question or stimulus evoking the response is broad, your responses will be comparatively broad. In these instances, we recommend conducting what is known as the Key-Word-In-Context, or KWIC method to reveal the way in the themes in your data are related in the minds of your participants.

Finally, and similar to the main table, if you require even more specificity, you can either subdivide your responses into subsections (such as sentences, paragraphs, or sections), or filter your cases by particular keywords and reanalyze your data, or ask a more specific question.

More information about understanding and interpreting the results presented in the subsample comparisons table, a summary of the KWIC method, and details about ways to subdivide data are all discussed in *Under the feathers: a technical manual on the science and technology of Raven's Eye*.

Working with previously uploaded projects.

After you have at least one uploaded project in our software, each time you login, you will be taken to the *Select a project to analyze* page, which directs you to select a project to analyze. This page works much like the page previously discussed in the *Uploading your data* chapter of this manual.



Select a project to analyze.

Demonstration
Purpose_and_goals
Success_Results
WarandPeace
personality_images
projectiveresponses
time_based_thoughts

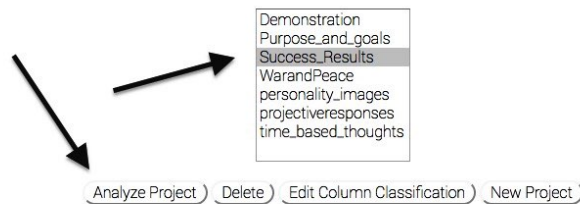
Analyze Project Delete Edit Column Classification New Project

Selecting a project.

To open a previously uploaded project, click on its name in the box. The name will become gray. Next, click on the *Analyze Project* button. You will then be taken to the *Results* page. The column classifications and variables you selected (if any) the last time you accessed your project are preserved in this initial results page.

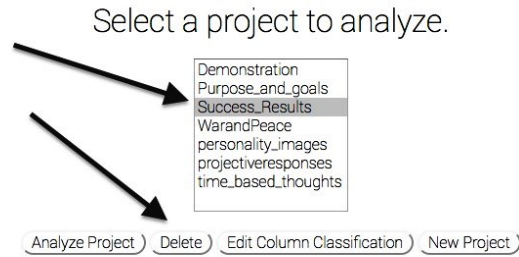


Select a project to analyze.



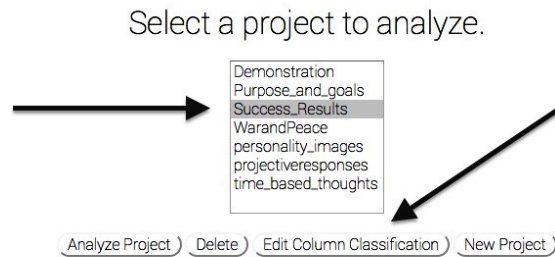
To delete a previously uploaded project, click on its name in the box. The name will become gray. Next, click on the *Delete* button. You will be asked to confirm your desire to delete the project. Selecting *OK* deletes the project in its entirety and returns you to

either the *Select a project to analyze* page if you have other projects previously uploaded

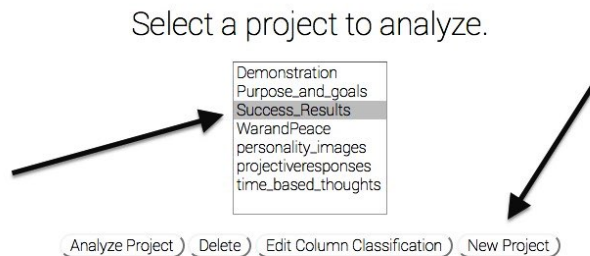


to Raven's Eye, or the *Select a project to upload* page if you do not.

To edit the classifications you assigned to columns in a previously uploaded project (i.e., *Variable*, *Response*, or *Exclude*), click on its name in the box. The name will become gray. Next, click on the *Edit Column Classification* button. You will then be taken to the *Change classifications of columns* page, which is discussed in the next section.



If you like, you can also upload a new project from this page, by clicking on the *New Project* button. You will then be taken to the *Select a project to upload* page described previously in the *Uploading your data* chapter of this manual.



Reclassifying columns in an existing project.

There are two ways to reclassify whether the columns in an existing project should be treated as either a variable or a response, or excluded from analysis by Raven's Eye.

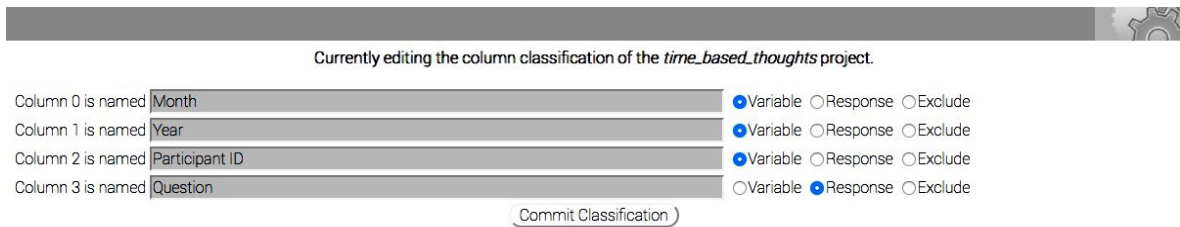
One way was just discussed in the previous chapter of this manual: select the *Edit Column Classification* button on the *Select a project to analyze* page.

You can also reclassify data in a currently open project by selecting the *Reclassify* button in the menu bar.



Selecting either button will take you to the *Change classifications of columns* page, which is functionally equivalent to the *Commit classifications* page discussed in the *Classifying your columns* chapter of this manual.

To ensure that you are editing the classifications of columns in the correct project, double-check that the correct project name is present in the subtitle of the page, located just under the menu bar. In the example below, the subtitle indicates that a project named *time based thoughts* is being reclassified.

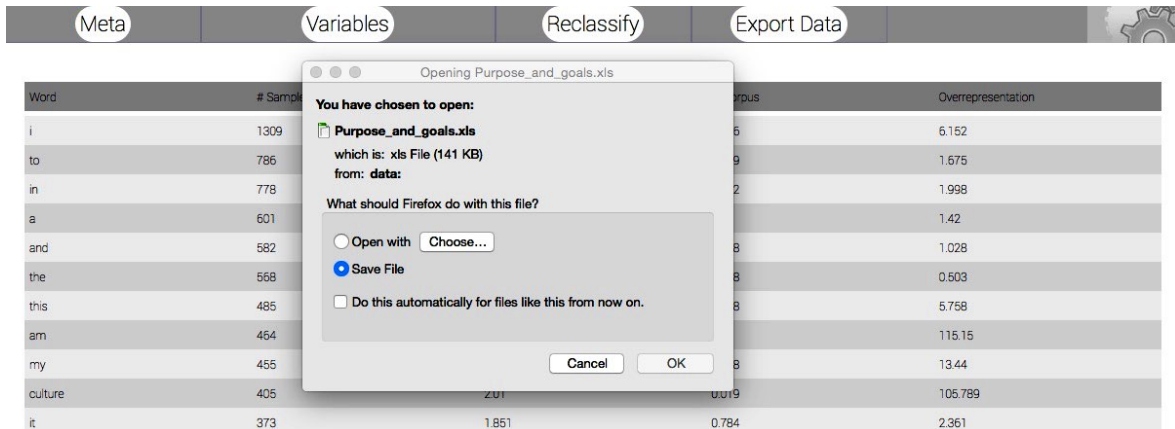


You can now alter the classifications of columns in your project by changing which radio buttons are selected.

Once you have reclassified your columns, you can analyze your data by clicking the *Commit Classification* button, which is located near the bottom of the page.

Exporting your results.

You can download your results at any time during analysis. To do so, click on the *Export Data* button in the menu bar. Your data will download to your computer in .xls format.

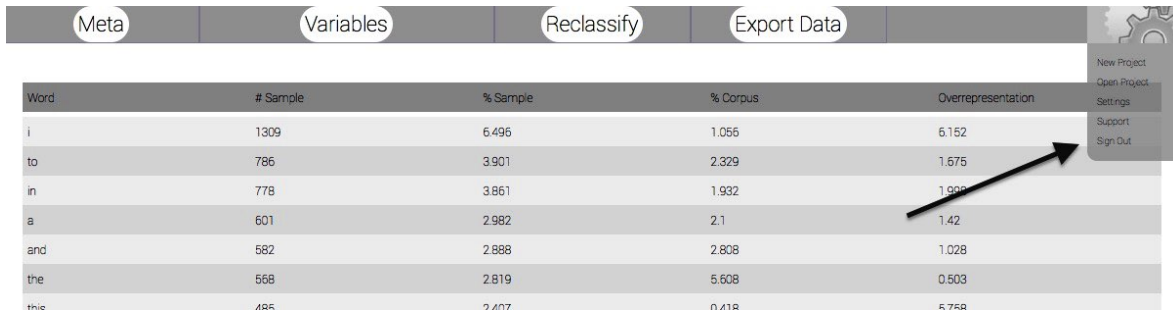


When you would like to open your results, navigate to your *Downloads* folder (or, wherever you saved the downloaded file) and open the file. You can now work with and save your file locally on your computer.

If you are using a spreadsheet program that does not automatically read .xls files, you can alter the file format to .csv, which is understood by nearly all spreadsheet programs. To alter the format of the downloaded file to .csv, navigate to your *Downloads* folder (or, wherever you saved the downloaded the file). Once there, right-click (or command-click) the file, and select *Get Info* from the dropdown menu. Locate the Extension field, and change the extension from .xls to .csv . Now, open the file from within your spreadsheet program and work with it as you would otherwise do normally.

Signing out.

To sign out of Raven's Eye, click the moving cogs in the menu bar, located in the top right-hand corner of the screen. Next, select *Sign Out*.



Word	# Sample	% Sample	% Corpus	Overrepresentation
i	1309	6.496	1.056	6.152
to	786	3.901	2.329	1.675
in	778	3.861	1.932	1.998
a	601	2.982	2.1	1.42
and	582	2.888	2.808	1.028
the	568	2.819	5.608	0.503
this	485	2.407	0.418	5.758

After selecting this link, you will be signed out of Raven's Eye, and taken to our login page.

If you are using a computer that someone else can access, we recommend that you treat your account as you would your bank account, and quit or completely close out your browser after logging out (we'd also recommend clearing your browser's history, but that's just us being us).

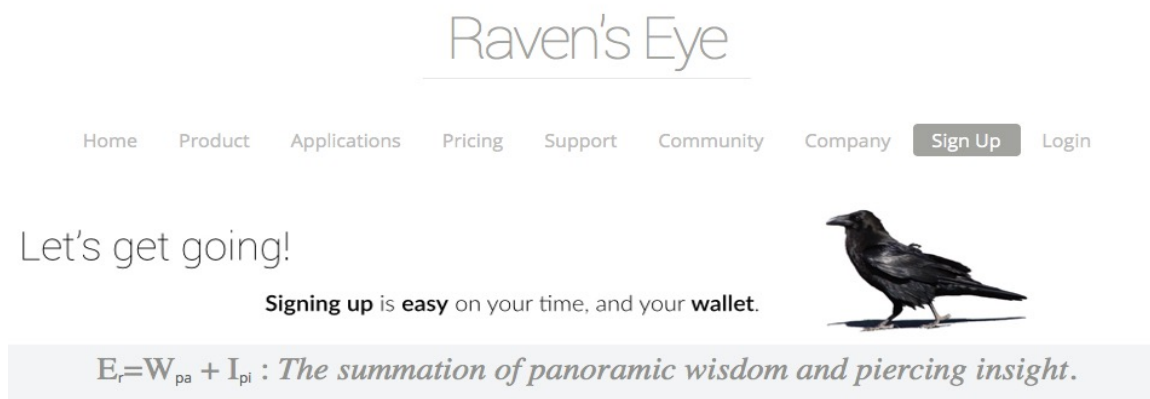
Recovering lost and forgotten usernames and passwords.

If you lose or forget your username or password, please email us at: customer.service@ravens-eye.net To expedite your service, please write, "forgot username," or, "forgot password," (or both), whichever is most appropriate, in the subject line of your email to us.

In your email, please provide the serial number that you (or the purchaser of your organization's license) received by email upon purchasing Raven's Eye, as well as the email address that you (or your organization's purchaser) initially used to purchase Raven's Eye. If the email address you used to initially sign up for your individual user account in Raven's Eye differs from the email address you (or your organization) used to purchase Raven's Eye, please also include this email address.

Licensing Raven's Eye.

To become a member of Raven's Eye, you must first choose and purchase the type of license that best meets your needs. If you are reading this manual, we assume that you have either already purchased your license, or are considering doing so in the near future. We will, therefore, briefly review our license options for you in this manual.



Choosing the right membership for you.

Membership licenses can be purchased and renewed through the *Sign up* page on the Raven's Eye website (http://ravens-eye.net/sign_up/index.php). As our *Pricing* page (<http://ravens-eye.net/pricing/index.html>) details, Raven's Eye offers five types of licenses:

Commercial. Raven's Eye strongly supports commercial enterprises in their mission to manifest the success they desire. We offer competitive prices to commercial enterprises in support of their success.

Academic. Academic and educational institutions with a 501(c) (3) qualify for a Raven's Eye education prices. Raven's Eye supports the creation and continuation of quality research. Due to Raven's Eye continued support, our services and prices for educational institutions are less than what our competitors charge.

Non-profit. Raven's Eye is keenly aware of the significant impact non-profits offer humanity. We highly support them in their efforts to do so. Raven's Eye offers Non-Profit entities the lowest price available for use of Raven's Eye analytics.

Government. Raven's Eye strongly supports Government officials. Our services enhance government officials in achieving their political goals.

Student. Students enrolled in higher education can receive Raven's Eye analytics at a significantly reduced cost.

Except our student licenses, all of our licenses are available as single user accounts, multiple user accounts, and site-based accounts. All but our student licenses last one year from the date of purchase. Current prices for yearly licenses are available for review anytime on the previously noted *Sign up* and *Pricing* pages of the Raven's Eye website. After a license expires, all associated user accounts and their data are permanently deleted from our servers.

Our student licenses are only available as single user accounts, and last for six months from the date of purchase. Current prices for these licenses are available for review anytime on the previously noted *Sign up* and *Pricing* pages of the Raven's Eye website. After a license expires, the user account and its associated data are permanently deleted from our servers.

Renewing your license.

We value your membership, and want to ensure that your data remains seamlessly accessible as you renew your yearly license from year-to-year. In 2016, we are offering discounts for those who renew their licenses at least 60 days prior to its expiration (don't worry, your new subscription will start when your old one was scheduled to lapse, so you will stay on the same annual license schedule). If you would like to take advantage of these discounts, contact us at customer.service@ravens-eye.net or through the form on the *Contact us* page of the Raven's Eye website. To expedite your service when doing so, please write, "2016 license renewal," in your subject line.

Rewarding humanitarian research.

At Raven's Eye, we support the betterment of humanity and our planet. As a result, we provide a limited number of humanitarian awards to researchers whose research interests benefit the health and wellbeing of humanity or our planet.

Each year, on a rolling basis and at our discretion, Raven's Eye provides free licenses to researchers who can demonstrate how the completion of their research will benefit either humanity at large, or the environments it inhabits.

These humanitarian awards are open to all researchers, including graduate and undergraduate students. To qualify for an award, researchers must include natural language analysis in their research, which must be focused on a topic that meaningfully betters either humanity, or planetary environments, or both. Successful applicants will also be able to demonstrate the ability to produce results that are publishable or presentable in scholarly and scientific venues.

Contact us by email at customer.service@ravens-eye.net, or through the *Contact us* page of the Raven's Eye website for more information about our humanitarian awards, or for application materials.

Contacting Raven's Eye.

Raven's Eye values our members' feedback.

If you experience any technical difficulties, please let us know. Our technicians will promptly and diligently work to resolve them in a timely manner.

Raven's Eye also values our members' opinions on how we can improve, or, about things you like. We would also love to hear about the projects you are working on, or how Raven's Eye fits into your success. So, please send us your feedback anytime about any topic, we much appreciate it.

Both technical difficulties and general feedback can be routed through our online form on the Contact us page, or by email at: customer.service@ravens-eye.net

Appendix A: Terms and conditions of use and purchase.

Privacy policy.

Raven's Eye is committed to your privacy. This privacy policy explains what information we may collect from you, how that information may be used, and how it will not be utilized. Other than for the reasons and purposes noted in this Privacy Policy, and absent your consent, Raven's will not disperse, sell, exchange, or provide your personal information, whether private or public, to any other entity whatsoever.

Website use or product access as your consent to our Privacy Policy.

By using the Raven's Eye website, or by accessing, downloading, or purchasing Raven's Eye software and related products, you are providing your consent to our privacy policy.

Information collected. Raven's Eye collects the following information from you:

- Information that you provide when you sign up for our services, or fill out a form on the Raven's Eye website.
- Site activity and log file information from your use of the site and our software.
- Your IP (Internet Protocol) address, and general information about your device, operating system, browser type, and site activity.
- Information provided to us from third-party website analytics services (e.g., Google Analytics) and payment processing services (e.g., Yabdab, Paypal, Visa, MasterCard, etc.).

Cookies. For your privacy, Raven's Eye does not collect cookies.

Use of collected information. Raven's Eye uses the information it collects for the following purposes:

- To help protect your account.
- To personalize your experience with Raven's Eye.
- To process communications or transactions instigated by you.
- To facilitate your purchase of our software via third-party payment gateways (e.g., PayPal).
- To understand and promote site traffic, usage, and trends related to the website and our software.
- To improve or modify the functionality of our software and our website.
- To notify you when your license nears its expiration date.
- If you elect it, to send you periodic emails from Raven's Eye about product updates, promotions, contests, company news, surveys, and other information of interest to our users.

Sharing collected information. Raven's Eye cares about your privacy. Raven's Eye uses a number of strategies to protect your personal information. Unless legally compelled by a specific law enforcement agency for a specific purpose, we do not

share your information or uploaded data with any other entity, nor do we monitor the contents of our user accounts, except for the following limited circumstances:

- the third-party website analytics and payment processing purposes noted previously,
- cases in which we believe you are violating the terms and conditions your user agreement, or
- user-initiated requests.

Our third-party analytics and payment processing partners (Google Analytics, Yabdad, and PayPal) have privacy policies of their own. Though we've paired with our partners because of their reputation for privacy and data security, Raven's Eye is not responsible for these partners' use of data, or breaches to their security.

Access to your Raven's Eye account. Only those non-Raven's Eye employees to whom you provide your username and password can access your account. At your request, Raven's Eye support specialists may access your account to assist with technical issues.

Changes to our Privacy Policy. Raven's Eye reserves the right to make periodic changes to our privacy policy. If such changes are made, they will be posted on this page and an email will be sent to the address on file for your account. Continued use of the website or our software after changes to our policy have been made constitutes your acceptance of those changes.
Date of current Privacy Policy.

This Privacy Policy was last updated on January 12th, 2015.

Questions. If you have questions regarding the terms and conditions of our Raven's Eye Privacy Policy, please contact us at customer.service@ravens-eye.net.

Software license agreement.

This is an agreement between Raven's Eye (Licensor) and you, our Customer (Licensee), to utilize The Raven's Eye Analysis Software (Software). If you purchase Licensor's software on behalf of an organization, then Licensee means you and the agency, business, or organization, on whose behalf you have purchased our software.

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To better serve its customers diverse and unique needs Licensor issues several different licenses types, including, but not limited to the following:

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Multiple-User License: Licensor grants multi-user customers a nonexclusive and nontransferable license to utilize the Software for a period of time agreed to by the parties where said agreement is hereby incorporated into this Software License Agreement by reference.

Site License: Licensor grants all individuals formally employed by a single legal entity customer a nonexclusive and nontransferable license to utilize the Software for a period of time agreed to by the parties where said agreement is hereby incorporated into this Software License Agreement by reference.

Licensee agrees that, should it facilitate persons not authorized by the terms of this license agreement to utilize the Software, Licensee will compensate Licensor the value of an annual, commercial, single user license for each such unauthorized person. This person shall then be authorized to use the software and be provided a license agreement for the term of one year. Licensor may waive or alter the terms of this

paragraph at its sole discretion and on a case-by-case basis. No voluntary alteration of the enforcement of this paragraph on the part of Licensor is intended by Licensor or Licensee to give rise to, or evidence, a course of dealing. At all times Licensor retains the sole right to enforce, or not enforce, this section of the contract.

Licensee grants Licensor the right to perform period audits of Licensee's use of the Software at Licensor's sole discretion. Licensee further agree to take all necessary steps required to facilitate the audit of Licensee by Licensor including providing names of all persons with access to account credentials and instructing individuals working for, or affiliated with Licensee, to disclose their use of the Software to Licensor. Should Licensee refuse to comply with these terms, Licensee agrees to the immediate, non-refundable termination of any and all Software Licenses issued by or from Licensor.

In no event will Raven's Eye be responsible for any lost: profit, revenue, data, or for special, indirect, or punitive damages however caused.

The parties agree that this license agreement shall be valid and binding upon the parties without the Licensee's or Licensor's signatures. The parties further agree that this license agreement becomes effective upon the Licensee's purchase or use of the Software and that this license agreement shall remain in effect for a period of not less than ten years following the last use of the Software by the Licensee.

Licensee assumes responsibility for complying with any local laws in Licensee's jurisdiction, which might affect Licensee's right to purchase, import, export, or use the Software. Licensee further agrees that it is its responsibility to comply with any regulations or registration procedures required by applicable law to make this license enforceable, including the payment of any expenses arising from such compliance. If Licensee is located outside the United States of America, then by entering into this Agreement, Licensee confirms that this Agreement and all related documentation is and will be written in the English language. The Software is not for sale in, nor may it be imported to, or otherwise used in, countries subject to applicable trade sanctions imposed by the United States of America, nor may it be used by anyone on the U.S. Department of Treasury's list of Specially Designated Nationals and Blocked Persons, or the U.S. Department of Commerce's Denied Person's List.

The parties agree that all disputes arising out of this Software License Agreement, and associated contracts, which incorporate this Software License Agreement, shall be settled by binding arbitration in Washington State of the United States of America. The parties further agree that the laws of Washington State shall govern this contract as well as any future interpretations of this contract, which may be necessary.

The parties further agree that the maximum amount for which Licensor may be liable to Licensee under this contract shall not exceed the remaining prorated refund value of Licensee's license. The remaining prorated refund value of Licensee's license shall be calculated as the remaining US Dollar value of the contract from the time a decision in

arbitration is reached to the time the contract in dispute would have terminated by its terms.

The Licensee further agrees that the Software is the exclusive property of the Licensor. The licensee also agrees that any tampering with Raven's Eye servers or Software, theft of Software (attempted or actual), unauthorized use of Software or reverse engineering of Software is grounds for immediate, non-refundable termination of service by Raven's Eye. Should Licensee abuse the services provided by Licensor in the manner described above, in this paragraph, Licensor may, at its sole discretion bring legal proceedings in the forum and venue of its choice against Licensee up to and including requesting that formal state or federal charges be brought. Under the circumstances specifically enumerated in this paragraph the parties agree that Licensor is not limited to binding arbitration to seek redress against Licensee and may institute formal civil proceedings at Licensor's sole discretion. The parties further agree that Licensee shall assume any and all court costs, which result.

This Agreement will be binding upon and will inure to the benefit of the parties hereto and their respective representatives, successors and assigns except as otherwise provided herein.

In the event any provision of this Agreement is determined to be invalid or unenforceable, the remainder of this Agreement shall remain in force as if such provision were not a part.

This Agreement sets forth the entire understanding between the parties with respect to the subject matter hereof, and merges and supersedes all prior agreements, discussions and understandings, express or implied, concerning such matters. This Agreement shall take precedence over any additional or conflicting terms, which may be contained in Licensee's purchase order or Licensor's order acknowledgment forms.

Questions. If you have questions regarding the terms and conditions of our Raven's Eye Software License Agreement, please contact us at: customer.service@ravens-eye.net.